

CLAIMS

What is claimed is:

1. A method for managing semiconductor manufacturing knowledge, the method comprising:
 - defining a hierarchy of interests in the semiconductor knowledge with data targets and results;
 - storing the hierarchy of interest;
 - developing a connectivity relationship diagram to reflect the dependency between the data targets and the results;
 - implementing the connectivity relationship diagram;
 - coupling the implemented connectivity relationship diagram with the stored hierarchy of interest;
 - identifying at least one data source for the data targets ; and
 - coupling the implemented connectivity relationship diagram to the at least one data source.
2. The method of claim 1, wherein the connectivity relationship diagram represents physical, logical and uncertain relationships.
3. The method of claim 1, wherein the connectivity relationship diagram is a dynamic master logic diagram.
4. The method of claim 1, wherein the data source is a dynamic master logic diagram.
5. The method of claim 1, wherein the data source is a legacy server.
6. The method of claim 5, wherein the legacy server data is accessed by an enterprise application integrator.
7. The method of claim 1, wherein the data source is a database.

8. The method of claim 1, additionally comprising:
inferring states of the data targets from states of the results; and
diagnosing a source of an anomaly in the data targets .
9. The method of claim 7, additionally comprising
automatically updating the database with the results.
10. A method for managing semiconductor manufacturing knowledge, the method comprising:
defining a hierarchy of interests in the semiconductor knowledge with data targets and
results;
storing the hierarchy of interest;
developing a dynamic master logic diagram to reflect the dependency between the data
targets and the results;
implementing the dynamic master logic diagram;
coupling the dynamic master logic diagram with the stored hierarchy of interest;
identifying at least one data source for the data targets ; and
coupling the dynamic master logic diagram to the at least one data source.
11. The method of claim 10, wherein the a dynamic master logic diagram comprise of a
conceptual layer, a logic layer and an implementation layer.
12. The method of claim 10, wherein the data source is a second dynamic master logic
diagram.
13. The method of claim 10, wherein the data source is a legacy server.
14. The method of claim 13, wherein the legacy server data is accessed by an enterprise
application integrator.
15. The method of claim 10, wherein the data source is a database.

16. The method of claim 14, additionally comprising automatically updating the database with the results.
17. The method of claim 10, additionally comprising:
inferring states of the data targets from states of the results; and
diagnosing a source of an anomaly in the data targets .
18. A semiconductor manufacturing knowledge management system , comprising:
at least one data source;
a conceptual layer stored in a storage unit; and
a logic layer coupled to the conceptual layer and at least one data source;
19. The system of claim 18 wherein the data source is a legacy server.
20. The system of claim 19 additionally comprising:
an enterprise application integrator couple between the logic layer and legacy server.
21. The system of claim 18 wherein the data source is a database.
22. The system of claim 21 wherein manufacturing requirements documents are stored in the database.
23. The system of claim 22 additionally comprising
an updating mechanism that updates the database with the changes in the conceptual layer.
24. The system of claim 18 additionally comprising:
inference engine coupled to the logic layer to determine states of the data targets ; and
diagnosis engine coupled to the logic layer to determine a source of an anomaly in the data targets.